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Martz

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(54) **PET CARRIER WITH CONVERTIBLE STRAPS**

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(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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Related U.S. Application Data

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(51) **Int. Cl.** **A01K 1/03**

(52) **U.S. Cl.** **119/497; 224/153; 224/579**

(58) **Field of Search** **119/497, 482, 119/496, 498, 769, 771, 500, 501; 224/153, 578, 579**

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Primary Examiner—Peter M. Poon

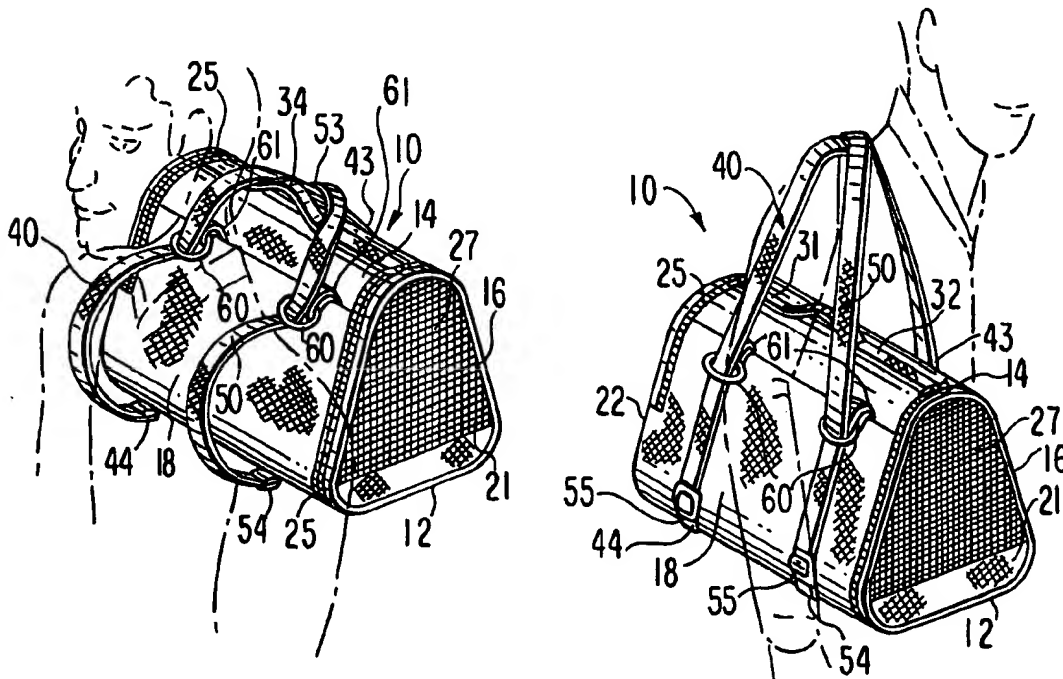
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(57) **ABSTRACT**

A portable animal carrier is provided which is of a size to comfortably hold a small pet, such as a cat or dog, and may be placed under an airline seat. Carrier straps are included to provide a versatility of to table options, which include carrying the portable animal carrier as a backpack, shoulder bag, or hand tote. The portable animal carrier may preferably have a tapered contour to facilitate it smoothly lying against the user's body when being transported as a backpack or shoulder bag.

14 Claims, 2 Drawing Sheets



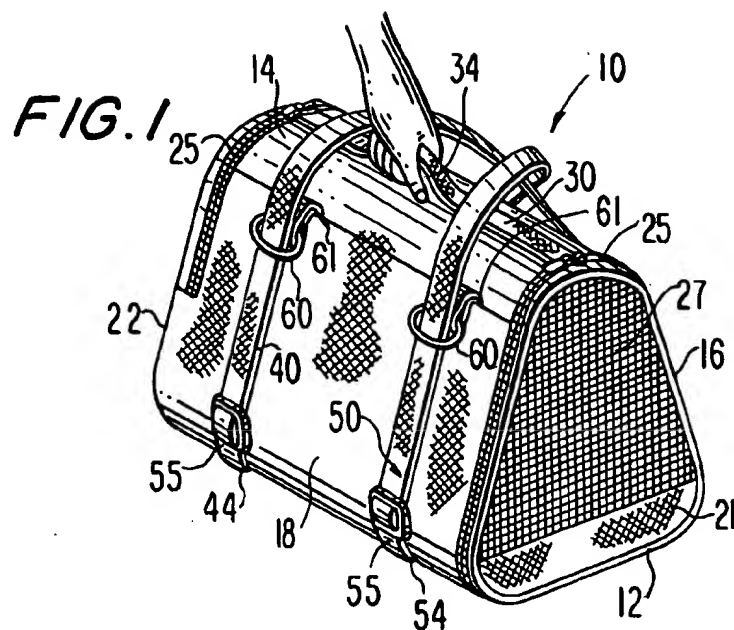


FIG. 2

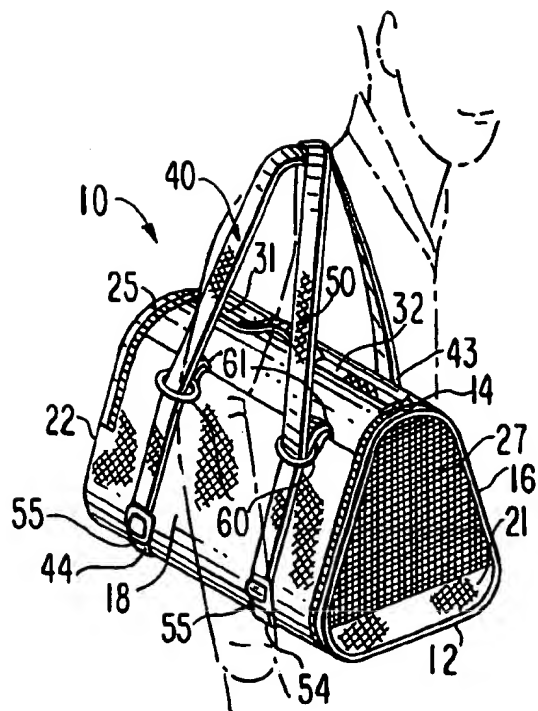
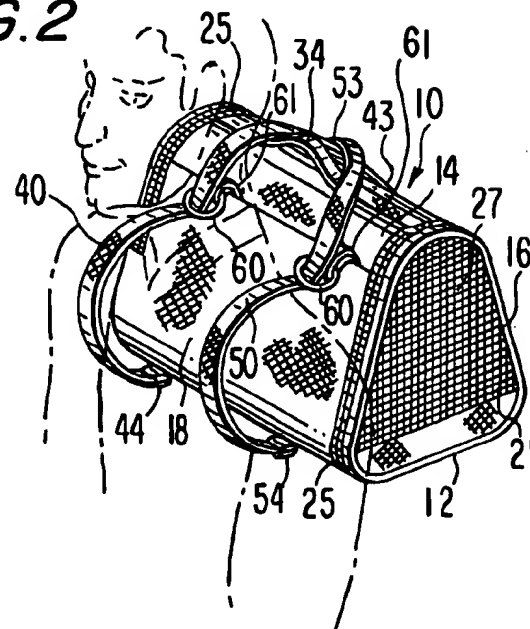
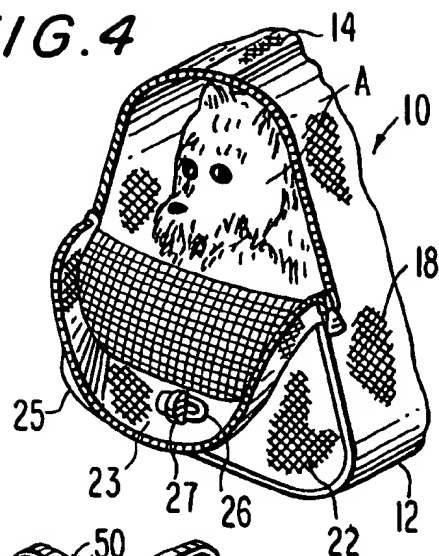
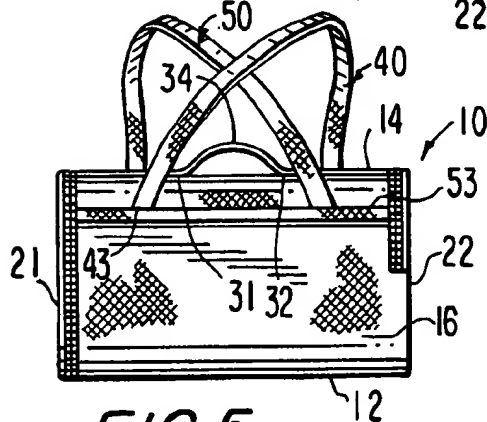
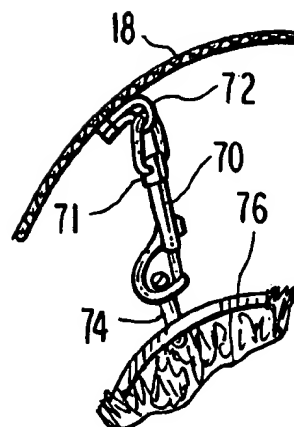
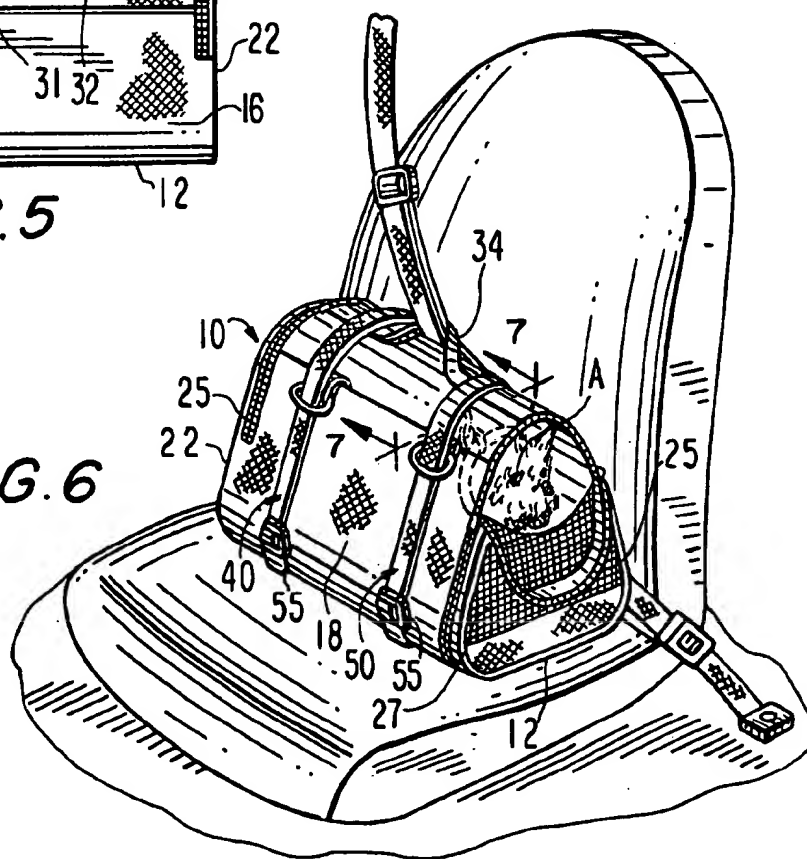


FIG. 3

FIG. 4**FIG. 7****FIG. 5****FIG. 6**

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PET CARRIER WITH CONVERTIBLE STRAPS

RELATED APPLICATIONS

This is a continuation in part of my application Ser. No. 08/924,979 filed Sep. 8, 1997 now U.S. Pat. No. 5,941,195, and entitled Animal Carrier.

FIELD OF INVENTION

The present invention relates to a portable animal carrier which permits the safe and humane carrying of a small animal, such as a cat or dog, on a common carrier. When used on an airplane, the portable animal carrier is of a size which can safely accommodate the cat or dog and may be stowed below an airplane seat. The portable animal carrier includes straps which permit the user to tote the carrier in a plurality of modes, which may include a backpack, shoulder bag, and hand carried tote.

BACKGROUND OF THE INVENTION

It is known to provide a portable animal carrier which is of a suitable size, and appropriately constructed, to obtain airline approval for passage within the main carrier cabin. Such a portable animal carrier contains an enclosure including appropriately connected bottom, top, end, front, and rear walls, with at least one of the walls preferably including an area formed of mesh material for providing appropriate ventilation to the interior of the enclosure. At least one of the walls includes a selectively openable closure means, such as a zippered panel, which provides a sufficiently large opening for the convenient insertion and removal of the animal from within the interior volume of the enclosure. In order to facilitate manual carrying of the portable animal carrier, straps are typically secured to appropriate locations, and extend above the top wall. Such straps may include both a hand tote strap and a shoulder strap, so as to provide a versatility of to table options.

While primarily intended for transporting a cat or dog in an approved manner within an aircraft passenger cabin, it is also desirable to safely and conveniently transport the animal within the carrier while the traveler is in the passenger terminal, or en route to or from the airport. The present invention provides a plurality of straps which are suitably placed and configured to also permit the portable animal carrier to function as a backpack.

SUMMARY OF THE INVENTION

In accordance with the present invention, the plurality of carrier straps which are secured to the portable animal carrier includes a pair of straps which can alternatively function as backpack straps or shoulder bag straps. These straps include two straps which crisscross along the rear wall of the portable animal carrier. One of the straps has its first end at a securement location at the top wall, proximate a first end of the portable animal carrier, with its second end being at a securement location at the bottom wall, proximate the opposed second end of the portable animal carrier. The other strap has its first end at a securement location at the top wall proximate the second end of the portable animal carrier, with its second end being at a securement location at the bottom wall proximate the first end of the portable animal carrier. A pair of ring members are also provided, spaced along the top region of the rear wall. A first one of said ring members is proximate the first end of the portable animal carrier, with an intermediate portion of one of the straps loosely extending

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therethrough. The other ring member is proximate the second end of the portable animal carrier with an intermediate portion of the other strap loosely extending therethrough. These straps may be freely movable through their respective ring members. By virtue of such movement they may be configured in either a first or second condition. The first condition, which will be the backpack mode, is characterized by the straps being taut against the exterior of the animal carrier between their securement location at the top wall and the ring members, with the remaining lengths of the straps loosely extending between the ring members and their securement location at the bottom wall. The second condition, which will be the shoulder bag mode, is characterized by the straps moving through the rings, such that they will be taut against the rear wall between their securement locations and the bottom wall, with the remaining lengths of the straps loosely extending between the ring members and their securement location at the top wall. Thus by moving this pair of crisscross straps between the ring members, the portable animal carrier may be readily converted between the backpack and shoulder bag modes of operation.

In accordance with another preferable feature of the present invention, another strap is provided between securement locations on the top wall, with the intermediate portion of the strap extending upwards of the top wall to provide a handle portion when it is desired to manually carry the portable animal carrier as a hand tote. Advantageously the handle is also further adapted to receive an automobile safety strap when it is desired to contain the portable animal carrier on an automobile seat, such as during transport to or from the airport.

As a further preferable feature of the present invention, the top wall of the portable animal carrier is of a significantly lesser width than its bottom wall, with the front and rear walls inwardly tapering between the bottom and the top walls. This taper advantageously facilitates the smooth placement of the portable animal carrier against the user's body in the backpack and shoulder modes of operation.

In accordance with another feature of the preferred embodiment of the present invention, the interior volume of the portable animal carrier includes a spring biased hook which is adapted to receive a leash ring carried by the animal, for retaining the animal within the interior volume when a portion thereof is opened.

According to still another advantageous feature of the present invention, at least one of the end walls defines a first opening which communicates with the interior volume, and is of a shape and dimension sufficient to facilitate insertion therethrough of the animal into the interior volume and removal therefrom. The opening is associated with a front closure panel having corresponding shape and dimensions whereby the closure panel is movable between a first position which exposes the interior volume through the opening and a second position which closes the opening, such as a zipper around the perimeter of the closure panel.

In accordance with still an additional feature of the preferred embodiment of the present invention, the perimeter of the closure panel includes a manually operable retention means for retaining the closure panel in its open condition in a Dutch door type configuration. This will allow the animal to comfortably move its head outside of the portable animal carrier, it being noted that the leash ring will be secured to the spring biased hook in the interior volume of the portable animal carrier, thereby preventing the animal from moving out of the portable animal carrier until the user releases the spring biased hook holding the leash ring.

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Accordingly, it is a primary object of the present invention to provide a portable animal carrier which includes a plurality of carrier straps permitting the animal carrier to function in a plurality of modes, which include a backpack.

A further object of the present invention is to provide such a portable animal carrier which may also be used as a shoulder bag.

An additional object of the present invention is to provide such a portable animal carrier in which the same straps can function to convert the unit between a backpack or a shoulder bag.

An additional object of the present invention is to provide such a portable animal carrier which is of a tapered configuration so as to facilitate the smooth placement against the user's body when it is in the backpack and shoulder bag modes of operation.

These as well as other objects of the present invention become apparent upon a description of the following drawings:

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the portable animal carrier, in the hand carried tote mode of operation.

FIG. 2 is a perspective view of the portable animal carrier, in the backpack mode of operation.

FIG. 3 is a perspective view of the portable animal carrier, in the shoulder bag mode of operation.

FIG. 4 is a perspective view of a portion of one end of the portable animal carrier, with its closure panel being shown open, and retained in that position.

FIG. 5 is a front view of the portable animal carrier.

FIG. 6 is a perspective view of the portable animal carrier of the present invention being placed upon, and safely maintained on, an automobile seat.

FIG. 7 is a cross sectional view along the line 7—7 as shown in FIG. 6 and looking in the direction of the arrows.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring initially to FIGS. 1-3, portable animal carrier 10 includes a bottom wall 12, top wall 14, front wall 16, and rear wall 18, as well as end walls 21 and 22 which collectively define an interior volume for receiving an animal A oriented head-to-tail between the end walls (such as shown in FIGS. 4 and 6). The "top" of the enclosure is thus by definition above the animal when it is in an upright orientation as shown in FIGS. 4 and 6. At least one of the end walls, such as 22, includes a closure panel 23 having a zipper 25 about its perimeter which permits the manual opening of the closure panel, with such opening providing access to the interior volume of the portable animal carrier sufficient for placement and removal of the animal A. Preferably the other end wall 21 may also be opened by a similar zipper 25 about a perimeter portion thereof.

The walls forming the portable animal carrier may be formed of a variety of materials, with black vinyl microfiber being a particularly advantageous material which is rugged, attractive, and may easily be cleaned. Further, various portions of the walls preferably include mesh material 27 for providing ventilation to the interior volume thereof.

In accordance with the present invention a plurality of straps 30, 40, and 50 are provided to readily permit the user to tote the portable animal carrier 10 as either a hand carried tote, backpack, or shoulder pack. Strap 30 is secured to the

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central portion of the top wall 14. A central handle 34 extends upward between spaced strap securement locations 31 and 32.

The straps 40 and 50 pass over the top wall 14 and crisscross between their respective ends, and include length adjustable buckles 55. Strap 40 has one of its ends secured to the carrier at a securement location 43 near the top wall, proximate end 21 and its other end at a securement location 44 at the bottom wall proximate the opposed end 22. Strap 50 has one of its ends attached at a securement location 53 near the top wall proximate end wall 22, with its opposite end at a securement location 54 at the bottom wall, proximate wall 21. Straps 40 and 50 loosely extend through rings 60 which are secured to the top region of rear wall 18 by fabric loops 61. Thus it should be appreciated that the intermediate portions of straps 40 and 50 loosely extend between their respective rings, and may readily pass through the respective rings for adjusting lengths of straps 40 and 50 which are respectively below or above the rings 60.

Straps 40 and 50 may preferably be moved between two conditions of operation. The first condition, in which the pet carrier will function as a backpack, is shown in FIG. 2. It is characterized as straps 40 and 50 being taut against the front wall between their securement locations 43 and 53 near the top wall and the ring members 60, with the remaining length of straps 40 and 50 loosely extending between the ring members 60 and their securement locations 44, 54 at the bottom wall. Should it then be desired to convert the pet carrier 10 to the shoulder bag mode of operation, straps 40 and 50 are upwardly moved through the loops 60 such that they will be taut against the rear wall between the securement locations 44, 54 at the bottom wall and the ring members 60, with the remaining lengths of straps 40 and 50 loosely extending between the ring members 60 and their securement locations 43, 53 near the top wall, as shown in FIG. 3.

As a further advantageous feature of the pet carrier case 10, at least one of the end walls, such as 22 shown in FIG. 4, includes a closure panel 23 which may be retained in the open condition, so as to permit the animal to comfortably position its head outside of the pet carrier. To retain the closure panel 23 in this condition, a retention means is provided which includes the turn buckle 27 which may be manually inserted through reinforced opening 26, with the turn buckle 27 then rotated 90° to the condition shown in FIG. 4. In order to maintain the animal within the pet carrier, particularly when closure panel 23 is retained in the open condition as shown in FIG. 4, a spring biased hook 70 (see FIG. 7) is secured to the upper region of the interior volume of the pet carrier, as by fabric loop 72. The spring biased hook member 70 may be manually opened by button 71 to receive a leash ring 74 which will be secured to the animal's neck by collar 76.

In accordance with another preferable feature of the present invention, top wall 14 is of a significantly lesser width than bottom wall 12 with the front and rear walls 16, 18 inwardly tapering between the bottom and top walls. This provides an overall profile of the pet carrier to facilitate its smooth placement against the user's body in both the backpack and shoulder modes of operation as shown in FIGS. 2 and 3.

Although not intended to be limiting, the portable animal carrier, which is designed to receive a cat or dog, and may be placed under an airline seat, may typically have the following dimensions:

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Height: 12"

Width at bottom: 8"

Width at top: 4"

Length: 15"

It is therefore seen that the present invention provides a conveniently to table portable animal carrier which comfortably and safely holds the animal and may be carried by the user in a variety of modes, including a backpack, shoulder pack, and hand carrying tote. Although the present invention has been described in conjunction with a preferred embodiment it should naturally be understood that various modifications may be made thereto. Accordingly, it is intended that the invention be defined by the following claims:

I claim:

1. A portable animal carrier comprising:

an enclosure having two ends, an opening for receiving into said enclosure an animal oriented head-to-tail between said ends of said enclosure, opposing sides extending between said ends, and a top extending between said ends above an animal oriented in a generally horizontal upright position within said enclosure; and

first and second carrier straps having first ends attached to one said side of said enclosure at spaced-apart securement locations and second ends attached to said opposing side of said enclosure at spaced-apart securement locations, wherein said straps are long enough between their respective securement locations to enable said enclosure to be carried either as a backpack using each said strap over a different shoulder of a user of the carrier or as a shoulder tote using both of said straps over one shoulder of the user, with an animal in said enclosure in a generally horizontal upright orientation with one of said sides of said enclosure against the body of the user.

2. A portable animal carrier according to claim 1, wherein: said securement location of said first carrier strap at said first end is proximate to said top and to one said end of said enclosure at a front side thereof and at said second end is proximate to a bottom and to the other said end of said enclosure at a rear side thereof; and

said securement location of said second carrier strap at said first end is proximate to said top and to said other end of said enclosure at said front side thereof and at said second end is proximate to said bottom and to said one end of said enclosure at said rear side thereof, so that said straps crisscross between their respective ends.

3. A portable animal carrier according to claim 2, further comprising a carrier handle on said top of said enclosure.

4. A portable animal carrier according to claim 3, wherein: said first carrier strap is adjustable in length and passes through a first ring member attached to said enclosure proximate to said top and to said other end of said enclosure at said rear side thereof;

said second carrier strap is adjustable in length and passes through a second ring member attached to said enclosure proximate to said top and to said one end of said enclosure at said rear side thereof; and

said carrier straps crisscross between said first ends thereof and said ring members and freely pass through said ring members so that said enclosure can be carried as a backpack by forming from each said carrier strap between said second end thereof and a respective said

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ring member a separate shoulder loop extending from said rear side of said enclosure and as a shoulder tote by forming from both said carrier straps between said first ends thereof and said respective ring members a crisscrossed shoulder loop extending above said top of said enclosure.

5. A portable animal carrier according to claim 4, wherein said enclosure is narrower at said top than at said bottom to facilitate smooth placement against the user's body when carried as a backpack or a shoulder tote.

6. A portable animal carrier according to claim 3, wherein said carrier handle forms a loop adapted to receive an automobile safety strap for retaining said enclosure on an automobile seat.

7. A portable animal carrier according to claim 1, further including an interior hook in said enclosure for receiving a leash ring in place on the animal and restraining the animal within said enclosure.

8. A portable animal carrier according to claim 1, wherein at least one said end of said enclosure includes an opening having dimensions sufficient to enable insertion of an animal into said enclosure and said carrier further comprises a closure panel movable between an open position exposing the interior of said enclosure for insertion or removal of said animal and a closed position for retaining said animal in said enclosure.

9. A portable animal carrier according to claim 8, wherein said closure panel has a partially open position through which the animal can pass its head and said carrier further comprises a retention member for holding said closure panel in said partially open position.

10. A portable animal carrier comprising:

an enclosure having two ends, a top, a bottom, and front and rear sides defining an enclosure of which a portion is made of a mesh material for ventilation of said enclosure;

an opening in at least one said end of said enclosure, said opening having dimensions sufficient to enable insertion into said enclosure an animal oriented head-to-tail between said ends of said enclosure with said top above said animal in an upright orientation;

a zippered flap having a closed position for closing said opening and an open position for permitting the animal to be inserted into said enclosure and removed therefrom;

a carrying handle at said top of said enclosure;

two adjustable-length carrier straps, wherein a first end of one said carrier strap is attached to said front side of said enclosure at a securement location proximate to said top and to one said end of said enclosure, and a second end of said one carrier strap is attached to said rear side of said enclosure at a securement location proximate to said bottom and to the other said end of said enclosure and wherein a first end of the other said carrier strap is attached to said front side of said enclosure at a securement location proximate to said top and to said other end of said enclosure, and a second end of said other said carrier strap is attached to said rear side of said enclosure at a securement location proximate to said bottom and to said one end of said enclosure;

a first ring member attached to said rear side of said enclosure proximate to said top and to said other end of said enclosure, said one strap freely passing through said first ring member; and

a second ring member attached to said rear wall of said enclosure proximate to said top and to said one end of

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said enclosure, said other strap freely passing through said second ring member, wherein said carrier straps crisscross between said first ends thereof and said ring members;

wherein said enclosure can be carried as a backpack with said animal being in a generally horizontal upright orientation by forming a separate shoulder loop from each said carrier strap extending from said rear side of said enclosure between said second end thereof and said respective ring member and as a shoulder tote with said animal being in a generally horizontal upright orientation by forming a crisscrossed shoulder loop from both said carrier straps between said first ends thereof and said respective ring members above said top of said enclosure.

11. A portable animal carrier according to claim 10, wherein said enclosure is narrower at said top than at said bottom to facilitate smooth placement against a user's body when carried as a backpack or a shoulder tote.

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12. A portable animal carrier according to claim 10, wherein said carrying handle forms a loop adapted to receive an automobile safety strap for retaining said enclosure on an automobile seat.

13. A portable animal carrier according to claim 10, further including a second opening in the other said end of said enclosure, said second opening having dimensions sufficient to enable insertion of an animal into said enclosure and a second zippered flap having a closed position for closing said second opening and an open position for permitting the animal to be inserted into said enclosure and removed therefrom through said second opening.

14. A portable animal carrier according to claim 13, wherein at least one of said flaps has a partially open position through which the animal can pass its head and said carrier further comprises a retention member for holding said one flap in said partially open position.

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(12) **United States Patent**
Pratt

(10) **Patent No.:** **US 6,216,926 B1**
(45) **Date of Patent:** **Apr. 17, 2001**

(54) **COMBINATION WORKOUT BACKPACK
AND DETACHABLE BACKPACK BAG**

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224/580; 224/583; 224/645; 224/655; 482/105**

(58) Field of Search **224/153, 576,
224/578-583, 627, 644, 645, 653, 654,
655, 658, 907, 148.2, 148.4, 148.5, 148.7;
482/105**

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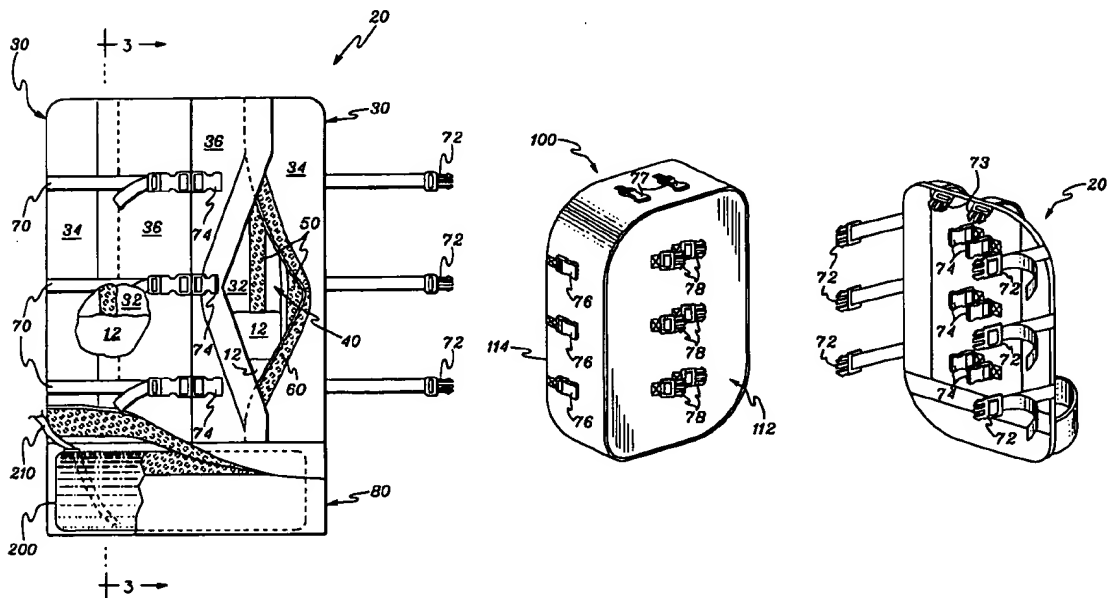
Primary Examiner—Gregory M. Vidovich

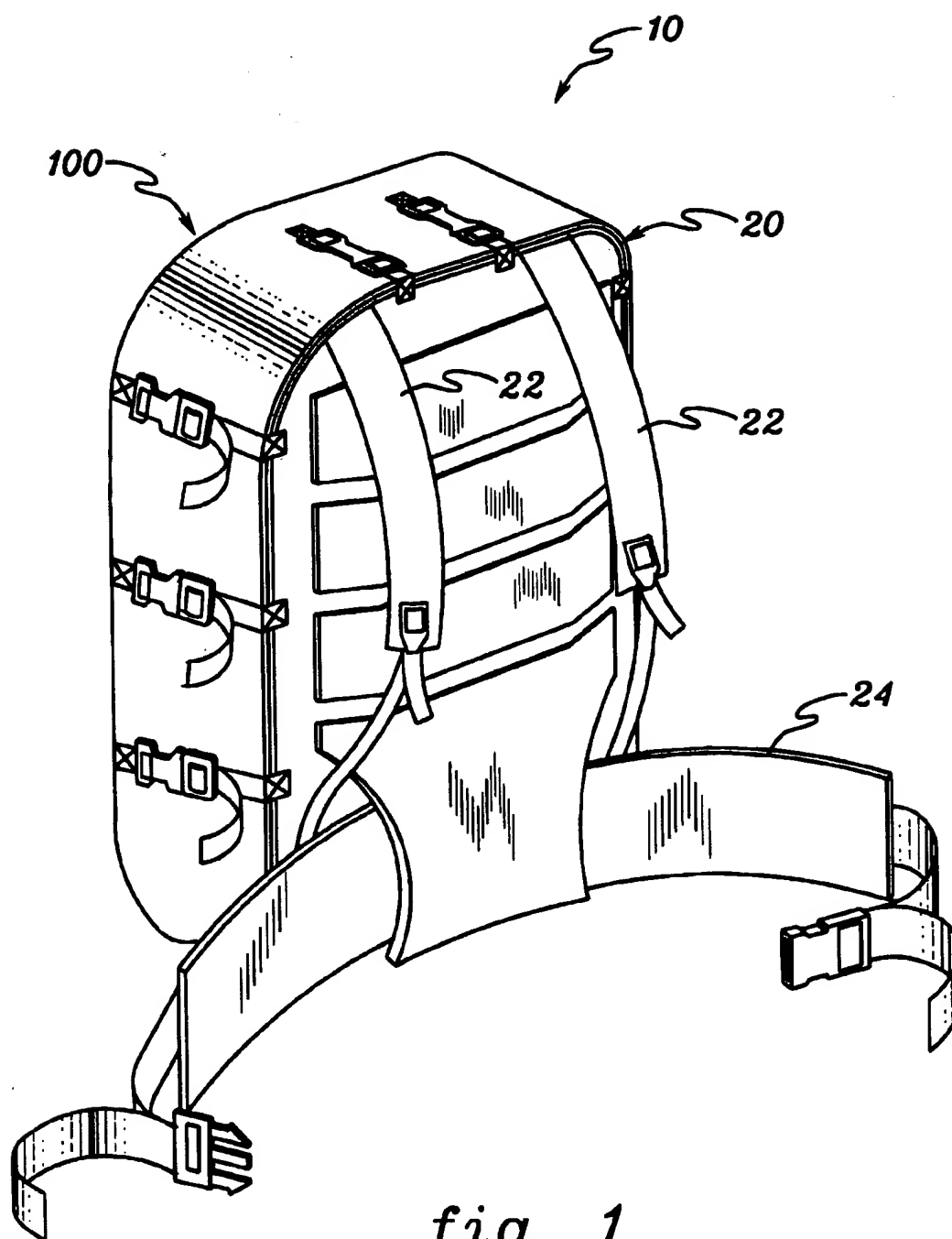
(74) *Attorney, Agent, or Firm*—Heslin & Rothenberg, P.C.

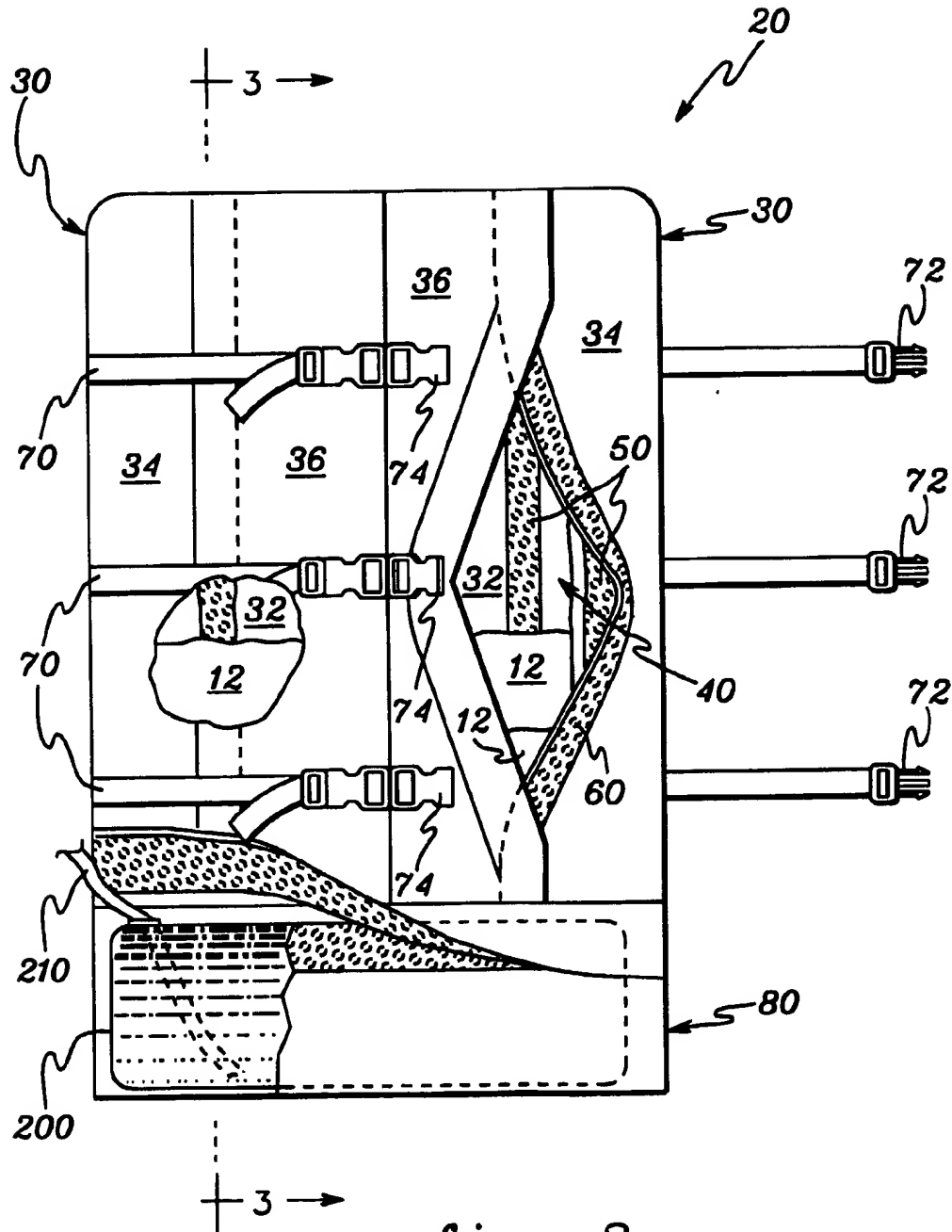
(57) **ABSTRACT**

A combination workout backpack and detachable backpack bag is disclosed in which the workout backpack and one or more standard weighted weight bags are used for training, i.e., building strength and endurance, for hiking. In addition, a detachable backpack bag is releasably attachable to the workout backpack so that the combination thereof, without the standard weighted weight bags, is designed for use as a conventional backpack for carrying various items when hiking. The workout backpack includes two vertically-extending, side-by-side, weight storage compartments which are conformable to one or more weight bags to inhibit horizontal and vertical movement of the standard weighted weight bags when training. A plurality of straps with releasable interlocking buckle clasps releasably attach a vertically-extending central portion, opposite lateral side portions, and a top portion of the workout backpack and to the detachable backpack bag to form an integral unit similar to a conventional backpack. Desirably, the workout backpack also includes a lower horizontal compartment for receiving a liquid container or medical bag.

28 Claims, 5 Drawing Sheets



*fig. 1*



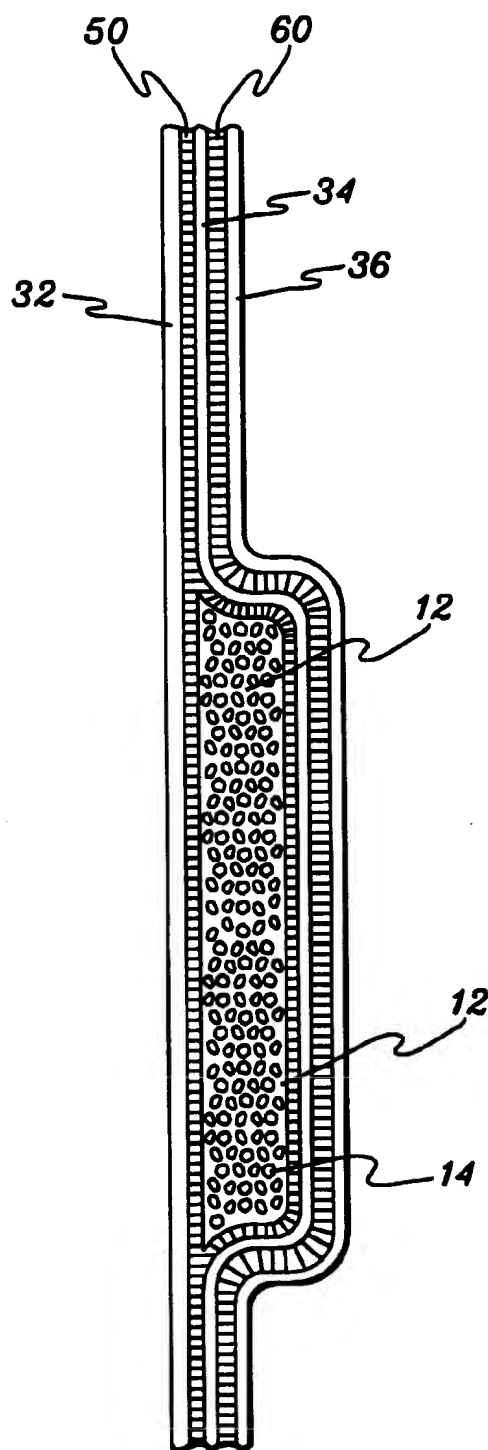


fig. 3

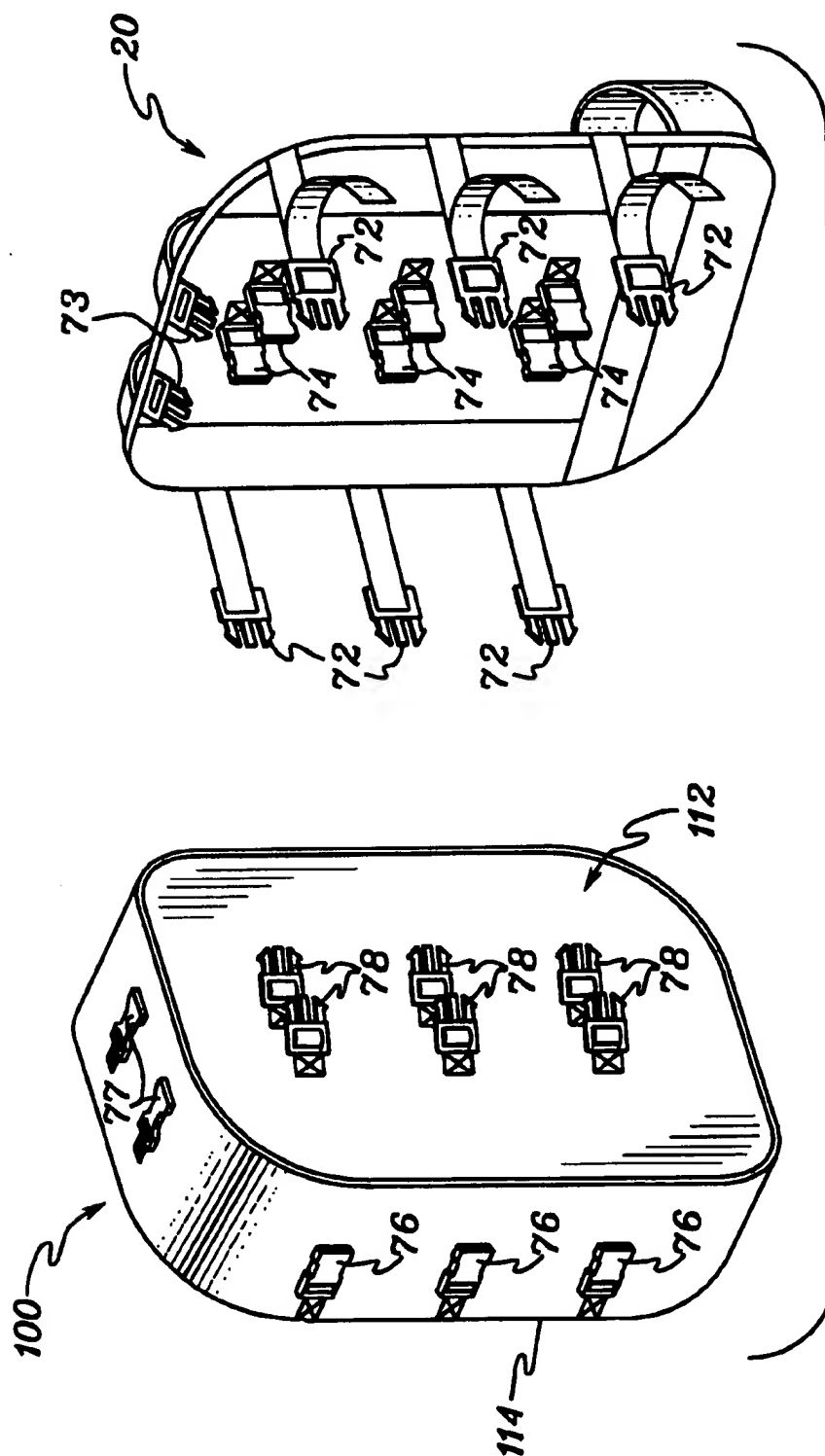
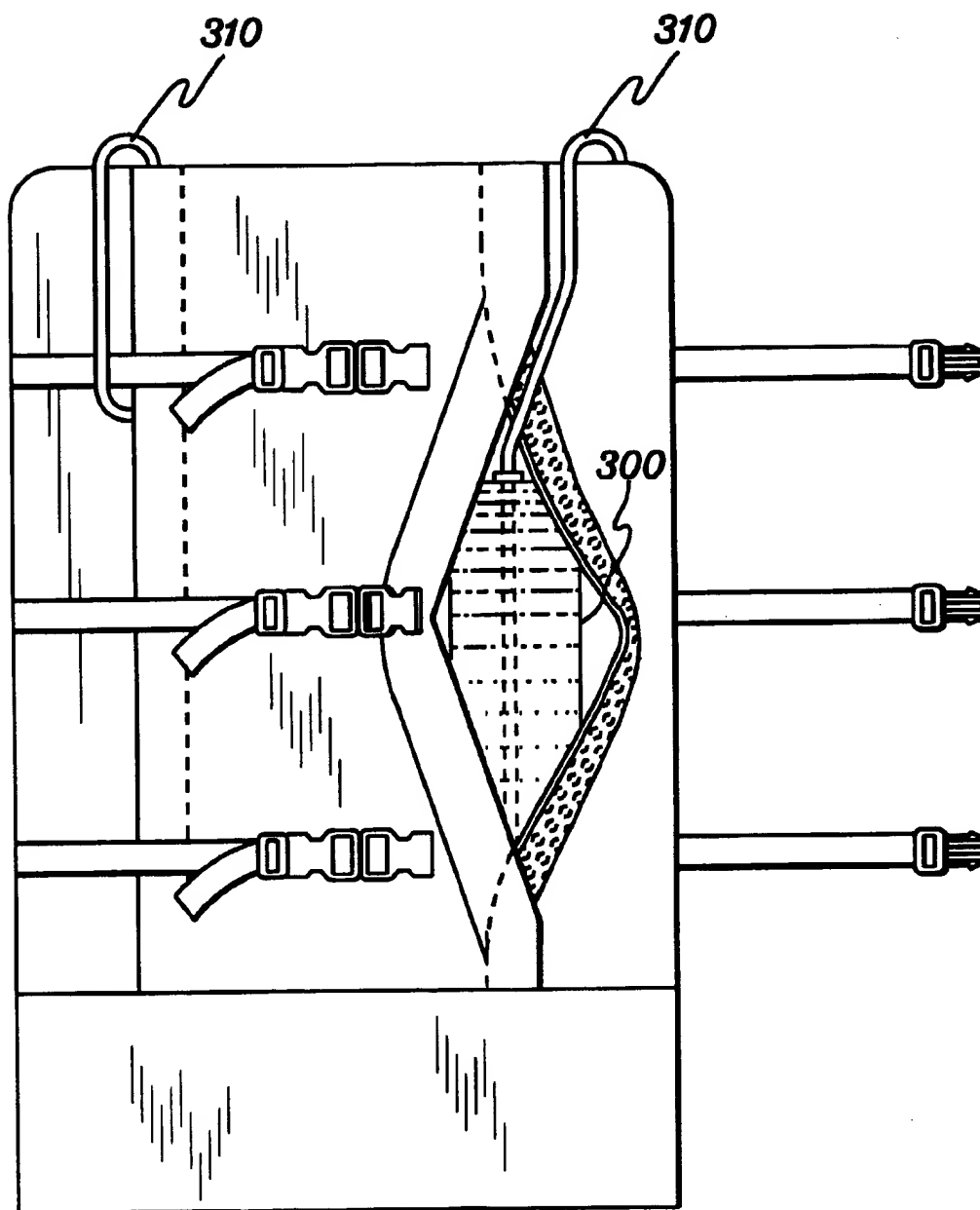


fig. 4

*fig. 5*

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COMBINATION WORKOUT BACKPACK AND DETACHABLE BACKPACK BAG

TECHNICAL FIELD

The present invention relates generally to backpacks, and more particularly to backpacks suitable for hiking and for training.

BACKGROUND INFORMATION

Backpacks are widely used by hikers such as travelers or campers to carry various items such as food, water, cook stoves, tents, sleeping bags, first-aid kits, flashlights, rain gear, maps, etc. In order to enjoyably reach out-of-the-way locations, a hiker needs to be physically fit to carrying a backpack which typically weighs about twenty-five to forty pounds when fully loaded with such items.

Various attempts have been made for building strength and endurance for hiking. For example, a hiker can train locally outdoors or in a gym with a fully loaded conventional backpack. However, a fully loaded convention backpack with its large size often calls attention to the hiker when training. In addition, particularly at a gym, a fully loaded conventional backpack limits movement of the hiker to avoid bumping into others or bumping into exercise equipment. In addition, it is often not practical to train with a fully loaded backpack which includes food items, thus requiring a hiker to find and use substitute items, such as metal, disk-shaped, free weights which can easily shift position in a conventional backpack when training.

Other attempts for building strength and endurance for hiking include specially designed exercise backpacks. For example, U.S. Pat. No. 4,332,379 to Bannister discloses a collapsible exercise backpack having a single compartment with an opening at the bottom for receiving a flexible weight carrying member, U.S. Pat. No. 4,944,509 to Snider discloses a weight lifting backpack which accepts standard sized, disk-shaped weights, and U.S. Pat. No. 5,299,999 to Brine discloses a rigid weight pack which receives rectangular-shaped planar weights.

A drawback of such prior art specially designed exercise backpacks is that they fail to provide a similar "feel", e.g., weight positioning and weight distribution compared to a conventional backpack for hiking, thereby limiting a hiker's ability to fully build strength and endurance. Furthermore, a hiker requires, in addition to the specially designed exercise backpacks for training, a separate conventional backpack for carrying items when hiking.

Therefore, there is a need for a low-cost, workout backpack suitable for optimizing training, as well as attachable to a detachable backpack bag suitable for carrying various items when hiking.

SUMMARY OF THE INVENTION

The above-mentioned drawbacks are overcome by the present invention which provides a combination workout backpack and detachable backpack bag which includes a workout backpack having at least one shoulder strap and at least one weight storage compartment in which is receivable at least one standard weighted weight therein, and a detachable backpack bag releasably attachable to the workout backpack. The workout backpack and the at least one standard weight is operable for training, and the workout backpack attached to the detachable backpack bag without the at least one standard weight is operable for hiking.

In one aspect of the present invention, the at least one weight storage compartment is sized so that the at least one

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standard weighted weight fits within and is restrained from horizontal movement in the at least one weight storage compartment. Desirably, the at least one weight storage compartment is adjustably conformable to a portion of the at least one standard weighed weight.

In another aspect of the present invention, the workout backpack releasably attaches to a central back portion, front lateral side portions, and a top portion of the detachable backpack bag.

In another aspect of the present invention, a plurality of standard weighted weights are provided and comprise a plurality of standard weighted flexible weight bags.

In still another aspect of the present invention, the at least one weight storage compartment comprises a plurality of elongated, vertically-extending, side-by-side weight storage compartments having a vertically-extending opening, and a plurality of releasably attachable safety straps extendable across the openings. The safety straps are also releasably attachable to a central back portion and lateral front side portions of the workout backpack.

In yet another aspect of the present invention, a rigid liquid container is receivable in the at least one weight storage compartment, and a drinking tube having an end is attachable to the liquid container. Desirably, the combination workout backpack and detachable backpack bag further includes a liquid storage compartment attached to the at least one weight storage compartment, a liquid container receivable in the liquid storage compartment, and a drinking tube having an end attachable to the liquid container.

Advantageously, by providing a workout backpack for training and a detachable backpack bag with attaches to the workout backpack for carrying items when hiking, a hiker is provided the same "feel" whether training or hiking, thereby aiding a hiker to optimize building strength and endurance when training. In addition, by providing weight storage compartments and standard weighted weights which are correspondingly sized, the weights are restrained and inhibited from shifting when training.

BRIEF DESCRIPTION OF THE DRAWINGS

The subject matter which is regarded as the invention is particularly pointed out and distinctly claimed in the concluding portion of the specification. The invention, however, together with further objects and advantages thereof, may best be understood by reference to the following detailed description of the preferred embodiments and the accompanying drawings in which:

FIG. 1 is a perspective view of one embodiment of a combination workout backpack and detachable backpack bag according to the present invention;

FIG. 2 is front elevational view of the workout backpack shown in FIG. 1 illustrating the weight storage compartments;

FIG. 3 is a partial cross-sectional view taken along line 3—3 of FIG. 2;

FIG. 4 is an exploded perspective view of the workout backpack and detachable backpack bag, shown in FIG. 1, illustrating the attachment of the workout backpack to the detachable backpack bag; and

FIG. 5 is a front view of the workout backpack shown in FIG. 1 having liquid containers disposed in each of the side-by-side weight storage compartments.

DETAILED DESCRIPTION OF THE INVENTION

FIG. 1 illustrates one embodiment of a combination workout backpack and detachable backpack bag according

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to the present invention which is generally designated as reference number 10 and which is readily attachable to and worn on the back of a hiker. As described in greater detail below, a workout backpack 20 (and standard weights not shown in FIG. 1) is designed to be used for training, i.e., building strength and endurance, for hiking. In addition, a detachable backpack bag 100 is releasably attachable to workout backpack 20 so that the combination thereof (without the standard weights) is designed for use as a conventional backpack for carrying various items when hiking.

As shown in FIGS. 1 and 2, exemplary workout backpack 20 includes a pair of vertically-extending, side-by-side, weight storage compartments 30, a pair of adjustable shoulder carrying straps 22 (FIG. 1), and an adjustable waist strap 24 which enables workout backpack 20 to be worn on a person's back like a conventional backpack. Desirably, the portion of workout backpack 20 which faces the back of the hiker is padded.

A plurality of standard weighted flexible weight bags 12 are readily placed in and fit within weight storage compartments 30. Desirably, weight bags 12 are symmetrically balanced in the weight storage compartments which are sized so that the weight bags are restrained from horizontal movement (as well as vertical movement as described below) during training. The standard weight bags may include a flexible outer shell containing therein a plurality of stainless steel or lead shot or pellets 14 (FIG. 3). The standard weight bags are desirably sized in five or ten pound increments or weight measures. Desirably, each weight storage compartment 30 is sized to receive four five-pound weight bags so that the workout backpack is operable to carry forty pounds of weight. As described in greater detail below, the weight storage compartments are adjustably conformable in size to one or more of the standard weight bags placed in the weight storage compartments.

Each weight storage compartment 30 includes a rear wall 32, and a first front web material 34 and a second front web material 36 which define between edge portions thereof an opening 40 to weight storage compartment 30. Desirably, edge portions of front web materials 34 and 36 overlap each other to close opening 40.

As best shown in FIG. 3, weight storage compartment 30 is conformable around a plurality of weight bags 12 placed and vertically stacked in-line therein. Advantageously, the conformable weight storage compartment is collapsible to maintain the position of the stacked standard weight and inhibit weight bags 12 from moving or shifting (horizontally and vertically) when the workout backpack is used by a hiker for exercising or training.

In this exemplary workout backpack, weight storage compartments 30 desirably have a width and a depth sized and corresponding to a width and a depth of the standard weighted weight bag to ensure that the standard weighted weight bags may be stacked one on top of another. In addition, attaching means are provided for releasably attaching rear wall 32 to first front web material 34, and first front web material 34 to second web material 36. For example, as shown in FIGS. 2 and 3, a first releasably interlocking mechanical fastener 50 releasably attaches rear wall 32 to first front web material 34, and a second releasably interlocking mechanical fastener 60 releasably attaches first front web material 34 to second front web material 36. Such releasably interlocking mechanical fasteners may include VELCRO® brand fasteners or the like.

In addition, a plurality of releasably attachable safety straps 70 may be provided which extend across openings 40

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of weight storage compartments 30 to aid in maintaining openings 40 of weight storage compartments 30 in a closed position. As explained below, safety straps 70 are also operable for attaching detachable backpack bag 100 (FIG. 1) to workout backpack 20. Desirably, the safety straps attach to the central portion of workout backpack 20 and to the front lateral side portions of workout backpack 20. Desirably, releasable clasps or buckles, for example, a male buckle clasp 72 and a female buckle clasp 74 of straps 70, releasably attach to one another.

With reference again to FIG. 2, workout backpack 20 may further include a horizontally-extending liquid storage compartment 80 sized for receiving a rigid liquid container 200 suitable for carrying water or other liquids when training. Desirably, a drinking tube 210 is attached at one end to liquid container 200 so that a hiker is able to drink from liquid container 200 while working out. From the present invention, instead of a liquid container, other items can be carried in storage compartment 80 when working out, such as a portable tape or compact disc player, or a medical bag.

As shown in FIG. 4, detachable backpack bag 100 is provided with a plurality of female buckle clasps 76 (three on each lateral side of detachable backpack bag 100) which releasably and securely attach to male buckle clasps 72 of safety straps 70 (FIG. 2) of workout backpack 20. A plurality of male buckle clasps 78 is disposed along a central portion of detachable backpack bag 100, which attach to female buckle clasps 74 disposed along the central portion of workout backpack 20. Side straps allow the detachable backpack bag 100 to be pulled closely and tightly to workout backpack 20. Desirably, the top of workout backpack 20 and detachable backpack bag 100 are also provided with a pair of releasably interlocking buckles or clasps, for example, a male buckle clasp 73 and a female buckle clasp 77 which matingly engage each other.

With the standard weighted weights 12 and liquid container 80 removed from workout backpack 20, the plurality of straps allows detachable backpack bag 100 to be securely attach to workout backpack 20 so that the workout backpack and the detachable backpack bag in effect become an integral unit similar to a conventional backpack. Desirably, detachable backpack bag 100 comprises various compartments for storing and carrying items similar to a conventional backpack.

With reference to FIG. 5, workout backpack 20 may also include a pair of rigid liquid containers 300 (only one of which is shown in FIG. 5) each being receivable in a respective one of weight storage compartments 30 prior to attaching workout backpack 20 to detachable backpack bag 100. Desirably, liquid containers 300 are fabricated from a rigid plastic so that when workout backpack 20 is attached to detachable backpack bags 100, the liquid contained within the liquid container is not compressed and forced out a drinking tube 310.

The workout backpack and detachable backpack bag may be formed from any convenient durable material such as plastic, vinyl, canvas, nylon, or leather. Preferably, the workout backpack and the detachable backpack bag are formed from a water resistant material such as a heavy reinforced CORDURA or similar fabric.

From the present description, it will be appreciated by those skilled in the art that more than two weight storage compartments may be provided in the workout backpack. It will also be appreciated that smaller sized liquid containers may be provided which fit in the weight storage compartments on top of the weight bags.

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Thus, while various embodiments of the present invention have been illustrated and described, it will be appreciated to those skilled in the art that many changes and modifications may be made thereunto without departing from the spirit and scope of the invention.

What is claimed is:

1. A combination workout backpack and detachable backpack bag comprising:

a workout backpack having at least one shoulder strap and at least one weight storage compartment in which is receivable at least one standard weighted weight;

a detachable backpack bag releasably attachable to said workout backpack;

said at least one weight storage compartment comprising a rear wall, a first front web material, and a second front web material which define between said first front web material and said second front web material an opening, and at least one of:

a first releasably interlocking mechanical fastener for releasably attaching said rear wall to said first front web material, and a second releasably interlocking mechanical fastener for releasably attaching said first front web material to said second front web material; and

a plurality of releasably attachable safety straps extendable across said opening, and said plurality of releasably attachable safety straps being operable to releasably attach to said detachable backpack bag; and

wherein said workout backpack and the at least one standard weighted weight is operable for training, and wherein said workout backpack attached to said detachable backpack bag without the at least one standard weighted weight is operable for hiking.

2. The combination workout backpack and detachable backpack bag of claim 1 wherein said at least one weight storage compartment comprises said first releasably interlocking mechanical fastener and said second releasably interlocking mechanical fastener.

3. The combination workout backpack and detachable backpack bag of claim 1 wherein said at least one weight storage compartment comprises said plurality of releasably attachable safety straps.

4. The combination workout backpack and detachable backpack bag of claim 1 wherein said at least one weight storage compartment is sized so that the at least one standard weighted weight fits within and is restrained from horizontal movement in said at least one weight storage compartment.

5. The combination workout backpack and detachable backpack bag of claim 1 wherein said at least one weight storage compartment is adjustably conformable to a portion of the at least one standard weighted weight to inhibit horizontal and vertical movement of the at least one standard weighted weight in said at least one weight storage compartment.

6. The combination workout backpack and detachable backpack bag of claim 1 further comprising means for releasably attaching a top portion of said detachable backpack bag to said workout backpack.

7. The combination workout backpack and detachable backpack bag of claim 1 further comprising at least one standard weighted weight.

8. The combination workout backpack and detachable backpack bag of claim 7 wherein said at least one standard weighted weight comprises a standard weighted flexible weight bag.

9. The combination workout backpack and detachable backpack bag of claim 7 wherein said at least one standard weighted weight weighs five pounds.

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10. The combination workout backpack and detachable backpack bag of claim 1 wherein said at least one weight storage compartment comprises a plurality of elongated, vertically-extending, side-by-side weight storage compartments.

11. The combination workout backpack and detachable backpack bag of claim 1 wherein said plurality of releasably attachable safety straps are releasably attachable to a central back portion and lateral front side portions of said detachable backpack bag.

12. The combination workout backpack and detachable backpack bag of claim 1 further comprising a liquid storage compartment attached to said at least one weight storage compartment, a liquid container receivable in said liquid storage compartment, and a drinking tube having an end attachable to said liquid container.

13. The combination workout backpack and detachable backpack bag of claim 1 further comprising a rigid liquid container receivable in said at least one weight storage compartment, and a drinking tube having an end attachable to said liquid container.

14. A combination workout backpack and detachable backpack bag comprising:

a workout backpack having at least one shoulder strap and at least one weight storage compartment in which is receivable at least one standard weighted weight, said at least one weight storage compartment comprising a rear wall, a first front web material, and a second front web material which define between said first front web material and said second front web material an opening, and means for releasably attaching said rear wall to said first front web material and said first front web material to said second front web material;

a detachable backpack bag releasably attachable to said workout backpack; and

wherein said workout backpack and the at least one standard weighted weight is operable for training, and wherein said workout backpack attached to said detachable backpack bag without the at least one standard weighted weight is operable for hiking.

15. A workout backpack comprising:

at least one weight storage compartment in which is receivable at least one standard weighted weight, said at least one weight storage compartment comprising a rear wall and a first front web material and a second front web material which define between said first front web material and said second front web material an opening; and

at least one shoulder strap attached to said at least one weight storage compartment; and at least one of:

a first releasably interlocking mechanical fastener for releasably attaching said rear wall to said first front web material, and a second releasably interlocking mechanical fastener for releasably attaching said first front web material to said second front web material; and

a plurality of releasably attachable safety straps extendable across said opening, and said plurality of releasably attachable safety straps being operable to releasably attach to a detachable backpack bag.

16. The workout backpack of claim 15 wherein said at least one weight storage compartment comprises said first releasably interlocking mechanical fastener and said second releasably interlocking mechanical fastener.

17. The workout backpack of claim 15 wherein said at least one weight storage compartment comprises said plurality of releasably attachable safety straps.

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18. The workout backpack of claim 15 wherein said at least one weight storage compartment is sized so that the at least one standard weighted weight fits within and is restrained from horizontal movement in said at least one weight storage compartment.

19. The workout backpack of claim 15 wherein said at least one weight storage compartment is adjustably conformable to a portion of the at least one standard weighted weight so that the at least one standard weighted weight is restrained from horizontal and vertical movement in said at least one weight storage compartment.

20. The workout backpack of claim 15 further comprising at least one standard weighted weight.

21. The workout backpack of claim 20 wherein said at least one standard weighted weights comprises a standard weighted flexible weight bag.

22. The workout backpack of claim 20 wherein said at least one standard weighted weight weighs five pounds.

23. The workout backpack of claim 15 wherein said at least one weight storage compartment comprises a plurality of vertically-extending, side-by-side, weight storage compartments.

24. The workout backpack of claim 15 further comprising a liquid storage compartment attached to said at least one weight storage compartment a liquid container receivable in

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said liquid storage compartment, and a drinking tube having an end attachable to said liquid container.

25. The workout backpack of claim 15 further comprising a liquid container receivable in said at least one weight storage compartment, and a drinking tube having an end attachable to said liquid container.

26. A workout backpack comprising:

at least one weight storage compartment in which is receivable at least one standard weighted weight, said weight storage compartment comprises a rear wall, and a first front web material and a second front web material which define between said first front web material and said second front web material an opening, and means for releasably attaching said rear wall to said first front web material and said first front web material to said second front web material; and at least one shoulder strap attached to said at least one weight storage compartment.

27. The workout backpack of claim 26 further comprising at least one standard weighted weight.

28. The workout backpack of claim 26 further comprising means for releasably attaching said workout backpack to a detachable backpack bag.

* * * * *

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,216,926 B1
DATED : April 17, 2001
INVENTOR(S) : Pratt

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 5,
Line 20, delete "wail" and insert -- wall --

Signed and Sealed this

Twenty-eighth Day of August, 2001

Attest:

Nicholas P. Godici

Attesting Officer

NICHOLAS P. GODICI
Acting Director of the United States Patent and Trademark Office